

FROM THE PRESIDENT...

Just one year ago, in my first column in this newsletter, I thanked outgoing Board member Richard Carson for his service to AERE. It's my pleasure to now welcome Richard back as President-Elect. Also joining the Board are newly elected members Kevin Boyle and Madhu Khanna, and Vice President John Horowitz. Thanks to outgoing members Carol Jones and John Whitehead, Past President Charlie Kolstad, and outgoing Vice President Cathy Kling for their many valuable contributions over the past three years.

Publication of Enduring Quality. The 2003 award for the Publication of Enduring Quality was presented to Partha Dasgupta and Geoffrey Heal for *Economic Theory and Exhaustible Resources*, Cambridge: Cambridge University Press, 1979. Partha was not able to be present at the annual AERE meeting, but Geoff gave a typically stimulating talk on accepting the award. Thanks to the selection committee of Bob Deacon (Chair), Ted McConnell, and Margaret Slade.

Third World Congress. As noted elsewhere in the Newsletter, Kyoto, Japan, has been chosen as the site of the World Congress scheduled for July 2006, from among four strong proposals including Chengdu, China; Istanbul, Turkey; and Pucon, Chile. We are indebted to Carlo Carraro, chair of the committee to solicit and review proposals, for his hard work in accomplishing these tasks, including negotiation with the Japanese hosts for reduced rate accommodations, and grants to encourage participation of developing country economists and younger members of the profession in Europe and the United States.

AERE Board Activities and Decisions. The Board met in January in San Diego and made a number of decisions that should have a positive impact on members. As reported elsewhere in the newsletter, an AERE Fellows program will begin next year, designed to recognize outstanding contributions to the field.

A committee consisting of Charlie Kolstad (Chair), Hilary Sigman, Bill Provencher, and new member Kevin Boyle, has drafted a detailed prospectus for a new AERE

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journal, tentatively titled *Review of Environmental Economics and Policy*, to supplement the *Journal of Environmental Economics and Management (JEEM)*. The new journal would be generally less technical than *JEEM*, with a focus on policy, and would include features such as reviews and symposia designed to reach out to noneconomists in the environmental policy community, as well as to current members of AERE. The prospectus is about to be circulated to potential publishers.

The news is less good with respect to membership and revenues. Membership is down a bit, perhaps as a result of the tie-in to *JEEM* subscriptions. At the same time, expenses are up, due to the new management contract with the American Agricultural Economics Association (AAEA). Following recommendations developed by a committee chaired by Laura Taylor, the Board took a number of steps to increase revenues, including accepting advertising in the *AERE Newsletter*, increasing mailing list fees, requiring presenters and discussants at AERE sessions to be AERE members, requesting that AERE membership be offered on AAEA's membership application, following up with lapsed members, and establishing an institutional membership category. One other recommendation I would like to make is that those in a position to do so bring AERE to the attention of your graduate students. I have been doing this for several years, as I firmly believe it is very much to their advantage to be members, and also strengthens our Association in the long run.

Upcoming Events. Three major conference events are scheduled for the next two to three months. First, of course, is the AERE Workshop on "Distributional Effects of Environmental Policy", June 13-15 in Estes Park, Colorado, organized by the workshop committee chaired by Don Fullerton. Next up is the European AERE (EAERE), holding its annual conference this year in Budapest, Hungary, June 25-28. Following this, it's back to Colorado, for the annual meetings of the AAEA in Denver, August 1-4. We have six sessions scheduled, down from eight last year, but up from the traditional three. The decline in sessions reflects a sharp decline in the number of papers submitted. It may be that last year was an aberration, but fortunately the AAEA has been willing to adjust our sessions in response to fluctuations in submissions. The AERE reception is scheduled for August 2, 5:30-7:00 p.m. More information about the sessions, and also about Workshop presentations appears on page 7 of this newsletter. Looking further ahead, the ASSA meetings in January 2005 will be in Philadelphia, with proposals for AERE sessions now due June 15.

Once again, I would like to close with words of appreciation: to journal and newsletter editors Joe Herriges and John Loomis respectively, to Board members, and to continuing officers, Secretary David Austin and Treasurer Ian Parry, and of course to AERE Executive Director and co-editor of the newsletter, Marilyn Voigt.

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AERE ANNOUNCEMENTS

AERE FELLOWS

Starting in 2005, AERE will have a new program to recognize outstanding contributions to the field by members of the Association. Details are given below. More information will be forthcoming along with a call for nominations in the November *AERE Newsletter*.

Criteria: Awardees will have demonstrated a significant contribution to the advancement of the profession of environmental and resource economics. A candidate must be living at the time of nomination and be a current member of the association or have been a member for at least ten years (not necessarily continuously).

Nomination Process: Any member of AERE can nominate a candidate for Fellow. A nomination packet should include a vita of the nominee, three letters of support, and a two-page nomination letter outlining what contributions the individual has made that warrant the award. In addition, members of the AERE Board of Directors can consider candidates that have not been otherwise nominated that they feel are especially worthy.

Selection Process: Nomination packages will be submitted to the President of AERE by June 1 of each calendar year. The president will distribute copies to each of the Board members who will select newly appointed Fellows from the set of nominations. Nominations will not be carried over to future years. Announcements of the new Fellows will be made formally at the annual AERE luncheon; newly elected Fellows will be notified ahead of time to provide ample time for travel arrangements. In future years, a separate Fellows Committee may be impaneled to aid in the initial screening of candidates.

Maximum Number of Awards: Three per year after the third year. In the first three years, up to six Fellows can be selected per year.

NOMINATIONS FOR AERE BOARD

This year, AERE members will vote for two new members of the Board of Directors who will serve for three years beginning in January 2005. The nominations are being handled by AERE Vice President John Horowitz and the elections will occur in the Fall of 2004.

If you have a candidate whom you would like to see nominated, contact John by **e-mail only** before the **July 1st deadline**. Nominations may also be made by the membership through petitions, each of which contains signatures of 5% of the association's members. **Such petitions should be sent to arrive at the AERE Business Office in Washington, DC no later than July 1, 2004.**

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PUBLICATION OF ENDURING QUALITY AWARD

The AERE Board of Directors will present the annual award (to co-authors if appropriate) for a publication of enduring quality that appeared at least five years prior to the year of the award. The 2004 award will be announced at the annual AERE winter meeting luncheon in January 2005. Nominated works are to be evaluated on their seminal nature and enduring value. Place and type of publication are unrestricted, but posthumous awards will not be given. Nominees may include individuals who are not members of AERE. Evaluation of nominated works and final selection for the 2004 award will be undertaken by a committee chaired by Ted McConnell, University of Maryland, College Park.

Nomination packages should consist of four copies each of a cover letter, a document supporting the nomination, and the publication itself. The supporting document (not to exceed three pages) should include quantitative as well as qualitative information (e.g., number of citations or copies printed). Nominations should be sent to arrive **no later than September 1st**.

This is an important award for AERE and for the recipients. Please give serious consideration to nominating a publication and to observing the submission requirements.

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**DISSERTATIONS INITIATIVE FOR THE
ADVANCEMENT OF CLIMATE CHANGE
RESEARCH (DISCCRS)**

The AERE Board voted to have AERE listed as a co-sponsor of the Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS). DISCCRS is an interdisciplinary, cooperative effort funded by the National Science Foundation (NSF) and the National Aeronautics and Space Administration (NASA) and supported by several professional societies including the American Geophysical Union (AGU), American Meteorological Society (AMS), American Society of Limnology and Oceanography (ASLO), and the Ecological Society of America (ESA). DISCCRS was founded in 2002. Please see the full announcement of this initiative in the Bulletin Board section of this issue.

AERE HOME PAGE

AERE can be found at: <http://www.aere.org>.

The AERE Home Page is a valuable resource. It provides information about membership, the *Journal of Environmental Economics and Management (JEEM)*, a list of AERE members with web pages, meetings and workshops, job opportunities, on-line discussion lists, and WWW links of interest. There is also an archive of AERE newsletters (1998-present). Only highlights of the most recent issue will be posted, however, since only current AERE members receive copies of the latest issue (now sent electronically). Members may access the AERE Handbook and Directory using the membership code. (All members were sent a letter containing the code--please contact Marilyn M. Voigt (voigt@aere.org) if you have misplaced it.)

Sincere thanks goes to the AERE webmaster, **Gernot Wagner**, for all he does to keep the site current with prompt updates. Please direct all of your job and meeting listings, links, personal web pages, etc. to: **webmaster@aere.org**.

AERE MEMBERSHIP SERVICES OFFICE

Please direct any questions about your membership status, *JEEM* subscription, AERE workshop or annual luncheon registrations, requests for receipts, or related membership matters to the new AERE Membership Services Office in Ames, Iowa. You can reach staff there at:

AERE Membership Services
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Ames, IA 50010-6600
Telephone: 515-598-5028
Fax: 515-233-3101
E-mail: info@aere.org

AERE BUSINESS OFFICE

Please contact the AERE Executive Director with any inquiries regarding AERE policies, newsletter announcements or advertisements, programs, etc.

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CALLS FOR PAPERS

ALLIED SOCIAL SCIENCE ASSOCIATIONS (ASSA)

The 2005 Winter meeting of the ASSA will be held in Philadelphia, Pennsylvania on January 7-9, 2005. James E. Wilen of the University of California at Davis is serving as chair of the AERE Program Committee. This year, all submissions are to be sent electronically via e-mail. Only .pdf files will be accepted as electronic format. No submissions will be accepted via facsimile or postal mail.

Authors wishing to have a paper considered for the AERE sessions should send a 2-3 page .pdf file by e-mail to:

James Wilen (aere2004@primal.ucdavis.edu).

The file should contain the following information:

- (I) name and institutional affiliation of paper presenter and co-author(s);
- (II) title of paper;
- (III) address and e-mail address of paper presenter;
- (IV) up to six key words;
- (V) JEL codes;
- (VI) long abstract of the paper (about 1,000 words).

The phrase "ASSA Submission" should appear in the subject line of the e-mail. Papers submitted without all the required information will not be considered. Electronic acknowledgements of submissions will be sent to all submitters. The deadline to submit has been extended to **June 15, 2004**.

Proposals for complete sessions are also encouraged. Organizers of proposed sessions should submit abstracts of papers following the above instructions. Papers may be accepted or rejected on an individual basis unless the organizer specifically requests the session be considered only in its entirety.

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AERE NEWSLETTER

The *AERE Newsletter* is soliciting essays about natural resource and environmental economics issues of general interest to the membership. These essays can be relatively short (6-10 double spaced pages) and address a topic that does not fit into the traditional journal outlet. There is currently no backlog, so your essay would likely be published in the next issue. Marilyn Voigt and I need your essay in February for the May issue and August for the November issue. If you wish to float an idea by me, feel free to contact me.

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AUBURN UNIVERSITY

Auburn University's Center for Forest Sustainability, Forest Policy Center, and Environmental Institute invite paper/abstract submissions for its upcoming conference: "Emerging Issues Along Urban/Rural Interfaces: Linking Science and Society," to be held at the Hilton Atlanta, March 13-16, 2005. The full conference registration fee of \$375.00 includes two receptions and all meals, except for two dinners.

We seek to bring together individuals with differing perspectives (ecology, chemistry, soil science, water quality, air pollution, economics, politics, public administration, geography, geographic information systems, environmental studies, forestry and wildlife sciences, agriculture, biology) on emerging urban/rural interface issues to help identify challenges, potential solutions, and opportunities, as well as share success stories and viewpoints. We intend to publish the conference Proceedings and a book of refereed papers.

We are very pleased to have the opportunity, made possible by support from the National Science Foundation, to provide grants for 25-35 undergraduate and graduate student participants. The deadline for submission of abstracts is **November 15, 2004**. More detailed information, including electronic submission of abstracts, is available on our conference website: <http://www.sfws.auburn.edu/urbanruralinterfaces/>.

SOCIETY FOR RISK ANALYSIS (SRA)

Risk Analysis: The Profession and the Future

**December 5-8, 2004
Wyndham Palm Springs
Palm Springs, California**

The Society for Risk Analysis (SRA) is a multidisciplinary, interdisciplinary, scholarly, international society that provides an open forum for all those who are interested in risk analysis. Risk analysis is broadly defined to include risk assessment, risk characterization, risk communication, risk management, and policy relating to risk, in the context of risks of concern to individuals, to public and private sector organizations, and to society at a local, regional, national, or global level.

As the SRA approaches its 25th year, it is a good time to celebrate its shared past and plan for a common future. See the SRA web site at: www.sra.org for complete information about the meeting and the Call for Papers with instructions on abstract and symposium submissions and student research paper merit awards. The deadline for submission of abstracts, symposia and workshops is **June 4, 2004**.

WORKSHOPS, MEETINGS, CONFERENCES

[For additional information about these events and others, see the links available on the AERE Web Page at: www.aere.org.]

AERE WORKSHOP

Distributional Effects of Environmental Policy

June 14-15, 2004
The Stanley Hotel
Estes Park, Colorado

Health

Moderator: **Norman Meade**, National Oceanic
Atmospheric Administration (NOAA)

“Family Resource Allocation and the Distribution of Health Benefits of Air Pollution Control,” **Mark Dickie**, University of Central Florida

Discussant: **Carol Mansfield**, Research Triangle Institute (RTI)

“Age Variations in Workers’ Value of Statistical Life,” **Joseph E. Aldy** and **W. Kip Viscusi**, Harvard University

Discussant: **Gardner Brown**, University of Washington

Theory

Moderator: **Wayne Gray**, Clark University

“The General Equilibrium Incidence of Environmental Taxes,” **Garth Heutel**, University of Texas

Discussant: **Chris Timmins**, Yale University

“On the (Ir)Relevance of Distribution and Labor Supply Distortion to Public Goods and Regulation,” **Louis Kaplow**, Harvard University

Discussant: **Nicholas Flores**, University of Colorado

Local

Moderator: **James A. Roumasset**, University of Hawaii

“Stigma: The Psychology and Economics of Superfund,” **Trudy Cameron**, University of Oregon; **Gary McClelland**, University of Colorado; and **Katherine Hackett**, **Kent Messer**, and **William Schulze**, Cornell University

Discussant: **Kip Viscusi**, Harvard University

“Testing for Environmental Gentrification: Migratory Responses to Changes in Environmental Quality,” **Spencer Banzhaf**, Resources for the Future (RFF) and **Randy Walsh**, University of Colorado

Discussant: **Ann Wolverton**, U.S. Environmental Protection Agency (EPA), NCEE

Vehicles

Moderator: **Urvashi Narain**, RFF

“An Econometrically Based Assessment of the Optimal Second-Best Gasoline Tax in a Setting with Heterogeneous Consumers,” **Roberton C. Williams**, University of Texas

Discussant: **Ron Shadbegian**, University of Massachusetts, Dartmouth

“Equity Implications of Vehicle Emissions Taxes,” **Sarah E. West**, Macalester College

Discussant: **Edward Morey**, University of Colorado

Climate

Moderator: **Rob Williams**, University of Texas

“Distributional Implications of Regional Climate Change Policies,” **Martin T. Ross** and **Brian C. Murray**, RTI

Discussant: **Jason Shogren**, University of Wyoming

“An Equilibrium Approach to Measuring the Incidence of the Amenity Effects of Climate Change,” **Christopher Timmins**, Yale University

Discussant: **Brian Murray**, RTI

Resources

Moderator: **Louis Kaplow**, Harvard University

“Winners and Losers of Natural Resource Degradation: An Empirical Study of Households in Rural India,” **Shreekant Gupta**, Delhi School of Economics; **Urvashi Narain**, RFF; and **Klaas van’t Veld**, University of Michigan

Discussant: **Mushfiq Mobarak**, University of Colorado

“Pareto-Improving Water Management: Space, Time and Watershed Conservation,” **Basharat A. Pitafi** and **James A. Roumasset**, University of Hawaii

Discussant: **John Martin Anderies**, Arizona State University

Energy

Moderator: **Randy Walsh**, University of Colorado

“Social and Distributional Aspects of Environmental Tax Reform Proposals in The Czech Republic,” **Jan Bruha**, CERGE, and **Milan Scasny**, Charles University Environment Center in Prague, Czech Republic

Discussant: **Lee Alston**, University of Colorado

“The 1990 Clean Air Act Amendments: Who Got Cleaner Air – and Who Paid For It?” **Ronald J. Shadbegian**, University of Massachusetts, Dartmouth and U.S. EPA, NCEE; **Wayne Gray**, Clark University; and **Cynthia Morgan**, U.S. EPA, NCEE

Discussant: Sarah West, Macalester College

AMERICAN AGRICULTURAL ECONOMICS ASSOCIATION (AAEA) ANNUAL MEETING

August 1 – 4, 2004
Adam’s Mark Hotel
Denver, Colorado

Registration and information about the meeting is available on the AAEA home page at: www.aaea.org. **June 28th** is the deadline for hotel reservations and reduced registration. AERE members are invited to a reception on Monday evening, August 2nd, from 5:30 to 7:00 p.m. in the Plaza Court Room 2 in the Adams Mark Hotel.

Session 1: Topics in Natural Resource Economics

Moderator: **Rubin Lubowski**, U.S. Department of Agriculture, Economic Research Service (USDA, ERS)

1. “Asymmetric Groundwater Games: the Case of the Cherokee Strip in Butte County, California,” **Siwa Msangi** and **Richard Howitt**, University of California (UC), Davis

2. “Estimating the Average Rental Premium in the Conservation Reserve Program,” **Michael J. Roberts**, U.S. Department of Agriculture, Economic Research Service (USDA, ERS); **Ruben Lubowski**, USDA, ERS; **Barrett Kirwan**, Cornell University

3. “Loss Aversion in Water Markets,” **Ram Ranjan**, USDA, ERS and **Jason Shogren**, University of Wyoming

4. “Fishery Management and the Industrial Structure and Performance of Fish Processing,” **Stephen Hackett**, **Mathew Krachey**, **Sharon Brown**, **David Hankin**, Humboldt State University, California

Session 2: Measuring Use and Non-use Values

Moderator: **Dan Phaneuf**, North Carolina State University (NCSU)

1. “Differing Values of Time for Non-Market Valuation: A Theoretical and Empirical Comparison,” **Raymond B. Palmquist**, **Daniel Phaneuf**, and **V. Kerry Smith**, NCSU.

2. “Time, Weak Complementarity, and Non-Use Value,” **Douglas M. Larson** and **Elizabeth Pienaar**, UC Davis

3. “Combining Conjoint Design and Travel Cost Model: An Application to Demand for Beach Trips,” **Ju-Chin Huang**, University of New Hampshire; **George Parsons**, University of Delaware, **P. Joan Poor**, St. Mary’s College of Maryland, and **Min Qiang Zhao**, University of New Hampshire

4. “Explaining Preference Reversals Through Anchoring: Treatment, Selection, and Cognition,” **Timothy Haab** and **Brian Roe**, The Ohio State University

Session 3: Conservation and Household Behavior

Moderator: **Michael R. Moore**, University of Michigan

1. “Private Provision of Environmental Public Goods: Household Subscription to Green Electricity Programs,” **Michael R. Moore**, University of Michigan and **Mathew Kotchen**, Williams College

2. “Discrete Choices with Social Interactions: An Application to Consumer Recycling,” **Gorm Kipperberg**, UC Davis

3. “Conservation Behavior: From Voluntary Restraint to a Voluntary Price Premium,” **Mathew Kotchen**, Williams College and **Michael R. Moore**, University of Michigan

4. “Are the Poor Benefiting from Conservation Programs in China?” **Emi Uchida**, UC Davis, **Jintao Xu**, CCAP, Chinese Academy of Sciences, **Scott Rozelle**, UC Davis

Session 4: Issues in Regulation

Moderator: **Christian Langpap**, Tulane University

1. “Optimal Technology R&D in the Face of Climate Uncertainty,” **Erin Baker**, University of Massachusetts, Amherst, **Leon Clarke**, Joint Global Change Research Institute, and **John Weyant**, Stanford University

2. “Environmental Externalities and Regulation in a Horizontally Differentiated Duopoly,” **George Deltas**,

Madhu Khanna, and **Donna Theresa Ramirez**, University of Illinois at Urbana-Champaign

3. “Pollution Abatement with Limited Enforcement Power and Citizen Suits,” **Christian Langpap**, Tulane University

4. TBA

Session 5: Voluntary Environmental Initiatives: Implications for Environmental and Financial Performance (Organized Session)

Moderator: **Madhu Khanna**, University of Illinois, Urbana-Champaign

1. “Environmental Self-Regulation: Implications for Environmental Efficiency and Profitability,” **Madhu Khanna**, University of Illinois, **Surender Kumar**, National Institute of Public Finance and Policy, New Delhi, and **Wilma Rose Q. Anton**, University of Central Florida

2. “Did the Voluntary 33-50 Program Reduce Emissions?” **Shanti Gaamper-Rabindran**, University of North Carolina

3. “Stock Market Reactions to Toxic Release Information: Do Relative Toxicities and Environmental Management Systems Matter?” **Satish Joshi**, Michigan State University, **Madhu Khanna**, University of Illinois Urbana-Champaign, and **Shaufique Sidique**, Michigan State University

4. “Environmental Compliance and Business Sustainability: Further Evidence from Agriculture,” **Robert Johansson** and **Jeffrey Hopkins**, USDA, ERS

Session 6: Environmental and Natural Resource Policy: A Roundtable of Agency Chief Economists

Panelists:

Al McGartland, U.S. Environmental Protection Agency (EPA)

Scott Farrow, U.S. General Accounting Office (GAO)

Randy Lutter, Food and Drug Administration (FDA)

Keith Collins, U.S. Department of Agriculture (USDA)

**CANADIAN RESOURCE AND
ENVIRONMENTAL ECONOMICS (CREE)
STUDY GROUP**

**October 1 - 3, 2004
University of Calgary
Calgary, Alberta, Canada**

The 2004 meetings of the Canadian Resource and Environmental Economics (CREE) Study Group will be held at the University of Calgary, Alberta on October 1-3. The meetings will be held concurrently with the Canadian Experimental and Behavioral Economics Workshop. For more information about CREE 2004, please visit the conference web site at:

<http://www.tri.ucalgary.ca/cree>.

**CENTER FOR SCIENCE
IN THE PUBLIC INTEREST (CSPI)**

Second Annual Conference

*Integrity in Science: Corporate and Political
Influence On Science-based Policymaking*

**July 12, 2004
8:30 a.m. to 5:30 p.m.**

**The International Trade Center
1300 Pennsylvania Ave. NW
Washington DC**

The Center for Science in the Public Interest (CSPI) will hold its second annual conference to address the corporate and political manipulation of science and scientists to influence public opinion and public policy on health and the environment. Learn how corporate-funded science is being wielded to frustrate regulation, thwart research on health risks, corrupt evidence-based medicine, suppress information about toxic products, and falsely reassure the public about product safety. Learn more about the latest political and corporate manipulation of the federal scientific advisory process and corporate harassment of scientists.

Become part of a growing movement to reassert the primacy of objectivity in science and science-based policymaking. Help forge an agenda to prevent conflicts

of interest and corporate domination of federal science advisory committees. Discuss the media's role in disclosing conflicts of interest and press for change.

Speakers Include: Keynote Speaker **Carol Browner**, former administrator, U.S. Environmental Protection Agency (EPA); Congressman **Henry D. Waxman (D-CA)** on the politicization of science; former *New England Journal of Medicine* Editor **Arnold Relman, M.D.** on the corruption of evidence-based medicine and Case Western Reserve University School of Medicine **Dean Ralph Horwitz, M.D.** on the academic response; fired EPA scientist **David Lewis, Ph.D.** on the suppression of government research; antidepressant researcher **David Healy, M.D.** on the suppression of drug industry research; Brown University Clinical Associate Professor **David Egilman, M.D., M.P.H.** on the suppression of workplace safety research; former U.S. Department of Energy Assistant Secretary **David Michaels, Ph.D.** on the OMB peer review proposal; and more.

For questions on the conference agenda and background, please contact:

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Discounted registration is available before June 14th. For questions about registration, please e-mail: IntegrityInScience@cspinet.org or call The Event Professionals at 301-577-6940. **To register on line, go to:**

http://cspinet.org/integrity/conflictedscience_conf.html

**EUROPEAN ASSOCIATION OF
ENVIRONMENTAL AND RESOURCE
ECONOMISTS (EAERE)**

**Thirteenth Annual Conference
June 25 – 28, 2003
Budapest, Hungary**

The European Association of Environmental and Resource Economists (EAERE) is an international scientific association with legal seat in Siegen, Germany (since May 1992), and secretariat headquarters in Mannheim, Germany. The aims of the association are to contribute to the development and application of environmental and resource economics as a science in Europe, to improve communication and contacts among teachers, researchers and students in environmental and resource economics in the different European countries, to develop and encourage cooperation among university level teaching institutions and research institutions in Europe.

The meeting is organized by the Institute of Environmental Sciences at the Budapest University of Economic Sciences and Business Administration (BUESPA). The BUESPA is located in Budapest, the capital of Hungary, and celebrated its 50th anniversary in 1998. It is the biggest institution in Hungary offering instruction in the economic and business sciences.

The conference will start with an evening reception on June 25th (Friday), and finish with a lunch on June 28th (Monday). All the events will be organized in the University's buildings. The accommodations will be in hotels which are within walking distance from the University.

The complete program, list of papers, and registration information can be found at: www.eaere.org.

The deadline for early registration is **May 31, 2004**.

**THIRD WORLD CONGRESS OF
ENVIRONMENTAL AND RESOURCE
ECONOMISTS**

**July 3 – 7, 2006
Kyoto, Japan**

The Committee in charge of the selection of the Congress Venue and Local Organizing Committee for the 3rd World Congress of Environmental and Resource Economists, to be held in 2006, has completed the selection process. Following a thorough evaluation of the excellent proposals prepared by the four candidates: Santiago, Chile (at Pucón); Chengdu, China; Kyoto, Japan; and Istanbul, Turkey, the Selection Committee has decided to entrust The University of Kyoto (Japan) with the prestigious task of organizing the 2006 World Congress. It has been difficult to make a final decision in view of the high quality proposals that the committee received. The decision reflects the development of a cooperation with the Japanese Association of Environmental Economists (called the Society of Environmental Economics and Policy Studies), which joins AERE, EAERE, and ALEAR in the organization of the 2006 World Congress. The Japanese association is committed to offering inexpensive accommodation facilities and to allocate 200 grants to facilitate the participation of environmental economists from developing countries and of young economists from Europe and the United States.

I would like to thank all members of the selection committee and above all, the applicants, for their efforts and cooperation during the selection process.

Professor Carlo Carraro
(On behalf of the 2006 World Congress Selection Committee)

ESSAY

“Cash and Carry” Irrigation Water Prices in a Cost-Contained World

Eric C. Schuck

Department of Agricultural and Resource Economics
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and

Gareth P. Green

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Seattle, WA 98122

Summary

Policy initiatives by the U.S. Bureau of Reclamation promote adoption of volumetric water prices as a conservation tool. Unfortunately, most irrigation districts use per acre water fees and place restrictions on total water costs that limit the ability to use volumetric water prices. As a result, increases in volumetric prices often require corresponding reductions in per-acre fees such that price changes are revenue neutral. Though these changes may send mixed signals for complimentary inputs, they still work to promote economic efficiency even if they may not lead to reductions in water use.

Introduction

For nearly two decades irrigation districts providing water from the U.S. Bureau of Reclamation (USBR) have been urged to adopt “conservation pricing” systems (USBR, 1998). This is particularly critical for irrigation districts within California’s Central Valley Project, the nation’s largest single irrigation project. Under the terms of the Central Valley Project Improvement Act (CVPIA), irrigation districts receiving water from the USBR must adopt tiered water pricing (Weinberg, 1997). Based on the simple—and economically sound—premise that irrigation water will be used more efficiently if irrigators pay for their water as they use it and the price reflects scarcity value of water, conservation pricing is a potentially significant change in the way water is managed in the western United States. There is, however, one significant problem: very few systems do it effectively. The vast majority of

irrigation water providers charge for water use not on the volume of water delivered, but on the acreage served (Michelsen et al., 1999) and even those that do charge volumetrically set price tiers that are nonbinding so they do not provide incentive for conservation.

Since most irrigation districts use area-based rather than volume-based prices, the first step in adopting conservation prices is to shift water costs from land to water. This is the situation the Arvin Edison Water Storage District (“Arvin”) in the Central Valley of California found itself in 1995. In response to USBR conservation price initiatives, Arvin adopted a “cash and carry” water pricing system in 1995. Prior to 1995, irrigators paid a per-acre fee (the “standby” charge) for delivery of a contracted quantity of water specified at the beginning of the growing season. Once the standby charge was paid, irrigators paid an additional volumetric fee (the “delivery” fee) when and if the water was delivered. In 1995 Arvin decreased the standby fee and increased the volumetric delivery fee to create a conservation incentive and compensate for lost revenues from reducing the standby fee. More significantly, Arvin removed the requirement that irrigators contract for a specific quantity of water at the beginning of the growing season. Instead, irrigators simply request and pay for water when and as it is used, giving a “cash and carry” system.

The revenue impact of this change in irrigation water rate structure was a serious concern for Arvin. Under the terms of the Reclamation Reform Act of 1982, irrigation districts can charge prices only up to the full cost of the water they deliver, where full cost is defined as the amortized cost of USBR facilities since 1982 (CBO, 1997). To ensure that the district would have enough funds to operate and stay within USBR cost requirements, Arvin tried to modify its standby and delivery charges in a way that would be revenue neutral¹. Indeed, based on expected water use, Arvin’s rate change should have left total on-farm water costs nearly constant.

¹ Prior to 1995, the standby charge was \$118.25/ac and the delivery charge was \$45.30/acre-foot. After the rate change, they were \$71/acre and \$65.30/acre-foot respectively. An irrigator using 3.5 acre-feet per acre (the District average use) would have paid a total of \$276.80/acre in water costs before the rate change and \$299.50/acre in water costs after the rate change; the difference between the two costs is due to changes in fees paid by the District to the USBR.

The primary effect of the rate-change was to make acreage cheaper and water more expensive while keeping the District's expected revenues steady. However, in shifting the district's revenue base from acreage to the volume of water used, Arvin changed not simply the price of water but also the tariff structure faced by irrigators. The demand consequences of changes in tariff structure have been well-studied in nonagricultural contexts (Oi, 1971), but have not been extended to irrigation water. More specifically, since Arvin purposely designed its rate change to be revenue neutral, the system they adopted is a variation of a two-part tariff with a balanced budget constraint (Ng and Weissner, 1974). Essentially, The rate change adopted by Arvin altered the bias in water costs, moving the burden of water costs from the extensive margin—acreage—to the intensive margin—applied water. Shifting the burden of costs affect not simply how much water is used, but also which crops are grown. Consequently, while Arvin intended its move to be revenue neutral, the resulting flexibility in water use decisions represents a major change in how irrigators make their water use decisions and revenues have actually increased.

Arvin's experience in adopting a conservation pricing system raises a key element in the conservation pricing issue that has not yet been addressed in the literature. Given institutional constraints on the transmission of costs to water users and historical practices in pricing water through land rather than water, conservation pricing ultimately reduces to a problem not of optimal pricing of a government-provided service, but of optimal distribution of costs to users across two complementary inputs. Indeed, the problem here is less "what is the optimal price of water?" and more a matter of "how best to distribute costs between water and land?"

So adopting conservation prices is neither as simple nor as clear-cut as intuition would suggest. Practical considerations related to working within existing institutional constraints and accounting for the common practice of splitting water prices across both land and water means the potential effects of conservation pricing display far more nuances than is typically reflected in discussions of the subject. As closer examination of the experience in Arvin Edison will show, moving to conservation pricing under current institutions changes quite a bit more than just the price of water.

Pricing for Expected On-Farm Cost Neutrality

The examination starts by laying out the on-farm irrigation costs of an individual irrigator. The irrigator obtains irrigation water from a regional irrigation district. The irrigator purchases water from the district through two prices. The first price is an acreage fee, denoted h , which entitles the irrigator to receive water. When the irrigator purchases water for delivery, they pay the volumetric price r on whatever quantity of water is purchased.

Under this two-part pricing system irrigators demand their water in two stages: first when they allocate acreage, and second when they apply water to planted acreage. Acreage is a function of a vector of crop prices, \bar{p} , the acreage-based fee, h , the volumetric charge, r , and a vector of other input prices, \bar{w} . Demand for applied water, AW , is a function of a vector of planted acreage, l , a vector of crop prices, \bar{p} , and the volumetric prices of water, r , so:

$$1) \bar{l} = l(\bar{p}, r, h, \bar{w})$$

$$2) AW = AW(\bar{l}(\bar{p}, r, h, \bar{w}), p, r)$$

Note that since the acreage-based fee is paid prior to water being applied, it affects applied water demand only through acreage allocations. The volumetric charge, however, affects both land use decisions and water applications since expected costs per acre will depend in part on the water use requirements of each crop. Consequently, the decision to plant a crop cannot be made without accounting for the water requirements (and costs) of that crop. Given equations 1) and 2), total on-farm water costs are the sum total of acreage-based fees and volumetric charges. If the irrigator produces k different crops, then total on-farm water costs are:

$$3) C(\bar{p}, r, h, w) = h \sum_k l_k(\bar{p}, r, h, \bar{w}) + r \sum_k AW_k(l_k(\bar{p}, r, h, \bar{w}), \bar{p}, r)$$

Expected revenue neutrality was a key feature of the 1995 rate change by Arvin. In fact, Arvin established a goal that total water charges per acre for a given irrigator would not exceed some target level κ . Using the information from equation 3), this implies:

$$4) h + rE \left\{ \frac{\sum_k AW_k(\bullet)}{\sum_k l_k(\bullet)} \right\} = \kappa,$$

where E is the expectations operator. Given this additional constraint, the irrigation district simply needs to determine what fraction of κ is to be paid through r and what fraction will be paid through h . If μ is the fractional apportionment of κ through r and h , then:

$$5) h = \mu \kappa$$

and

$$6) r = \frac{(1 - \mu) \kappa}{E \left\{ \frac{\sum_k AW_k(\bullet)}{\sum_k l_k(\bullet)} \right\}}$$

This approach is relatively simple, but its success as a pricing plan hinges on one critical element: the expected water use per acre must be constant for it to lead to a usable division of water prices. If the expected water use per acre varies across farms, the effects of switching the district's revenue base between acreage and water applications will not be cost-neutral and the results anticipated in equation 4) may not be achieved. If this happens, expected per-acre water costs for individual farms may change dramatically. In particular, differences in water use requirements across crops mean that a shift in water costs from acreage to water use that are uniform in expectation will not be uniform in execution, so while some irrigators will see their costs rise, others will see them drop. This indicates the conservation effects of such a rate change are unknown.

Moving the cost burden toward volumetric water (measured by a declining μ) will reduce water applications and will generally be considered incentive for water conservation since water effectively becomes more expensive and land becomes cheaper. At this point, the way each price affects the two inputs matters a great deal. Per-acre fees are uniform across crops. Consequently, they will tend to influence if a crop is

profitable or not and whether or not a crop will be considered. This is an extensive margin problem. Volumetric fees affect crops differently depending upon relative water requirements. This determines the relative profitability of crops, and therefore determines the relative preferences across crops—an intensive margin problem. Consequently, shifting the distribution in water costs will cause some crops to enter or exit the set of crops producers consider while simultaneously re-ordering the relative profitability of crops depending upon their relative water needs. The end result is that even a price change whose effects are expected to be revenue-neutral on irrigators does not have a clear effect and may or may not promote changes in input usage that lead to water conservation.

Brief Analysis of Changing the Distribution of in Water Price

The extent to which the distribution of water costs in water price matters can be seen through a brief simulation model built on an updated version of a water-pricing model developed by Schuck and Green (2002). Built on District GIS records of cropping patterns and irrigation technology in 1998, the model uses Positive Mathematical Programming (Howitt, 1995) to develop a calibrated model of agricultural production and water use for the District. Unlike the original Schuck and Green model that uses dynamic stochastic programming, the current model is simplified to a single time period for expediency and brevity.

Table 1 shows the price, average yield per acre, water use consumption per acre, costs per acre to produce and acreage in 1998 for the 12 dominant crops in the District. Yields and price are the 10-year average from the Kern County Agricultural Commission (Kern County, 1987-1999); Costs are taken from University of California crop budgets. Expected consumptive water use requirements per crop are taken from District records (JMLord, 1998).

Table 2 shows the price per acre-foot of water and acre across different apportionment of costs between the two inputs.

Table 1: Summary of Data for Simulation Model

	Price	Yield/per acre	Water Consumption /Acre	Cost/acre	Acres
<i>Alfalfa</i>	\$91.83	7.90	3.96	\$285	2009
<i>Almonds</i>	2461.82	0.74	3.46	1596	1760
<i>Carrots</i>	117.89	29.48	1.49	3772	1151
<i>Citrus</i>	366.09	12.31	2.80	4243	10034
<i>Cotton</i>	0.87	1183.98	2.57	580	3637
<i>Peaches</i>	979.93	6.57	3.37	9495	3501
<i>Grains</i>	121.79	2.65	1.85	214	3372
<i>Melons</i>	133.42	22.93	1.91	1594	1096
<i>Onions</i>	63.89	21.40	2.31	589	2226
<i>Potatoes</i>	188.20	17.93	1.73	582	7785
<i>Tomatoes</i>	62.83	36.03	2.14	1246	2369
<i>Vine</i>	431.46	8.67	2.30	5764	10631
<i>Fallow</i>					1222
TOTAL					50793

Table 2: Sample Volumetric and Per-Acre Water Fees

Portion of charge that is <u>acreage based (κ)</u>	Volumetric <u>Charge (r)</u>	Acreage <u>Charge (h)</u>
0	\$84.29	\$0
0.125	73.75	36.88
0.25	63.21	73.75
0.375	52.68	110.63
0.5	42.14	147.5
0.625	31.61	184.38
0.75	21.07	221.25
0.875	10.54	258.13
1	0	295

Note: Assumes the District is attempting to recover costs equal to \$295/acre. Volumetric fees are given for the District average of 3 pumping lifts. Prices at lower or higher elevations will vary.

Reallocating water charges between acreage-based and volumetric fees has unpredictable results. More specifically, increasing the volumetric fee causes more water-intensive to drop rapidly in their relative profitability, while simultaneously decreasing the per-acre fee causes crops with high per-acre costs to become more

profitable. With some crops entering and exiting the production set under each alternative pricing combination and the relative position of each crop within the set also changing, it is almost impossible to determine if the price-reforms are achieving conservation in a physical sense. Indeed, as Figure 1 shows, total water

applications tend to be very sensitive at higher volumetric prices but gradually plateau at lower prices. This is due to hitting available acreage constraints rather than any significant modification in water application rates. Yet something critical does happen. As shown in Figure 2, as the distribution of costs moves toward a purely volumetric system, profits per applied acre-foot rise. As a measure of economic efficiency—whether or not water is being sent to its highest and best use—this outcome is critical. It suggests that even without corresponding reductions in water usage the desired economic effect is occurring. Shifting the distribution of water costs toward volumetric pricing moves water toward its relatively more profitable use.

Even though institutional constraints on the District limit how it can price water and force simultaneous changes in per-acre and volumetric fees, adoption of volumetric prices in preference to acreage-based fees promotes economic efficiency. However, calling them “conservation” prices is perhaps a misnomer. At least in this example, the conservation effects of the new prices are negligible. While this outcome is completely an artifact of the constraints under which this irrigation district operates, they are more reflective of the real institutional burdens facing irrigation districts trying to comply with policy initiatives favored by the USBR than is typically recognized. Based on these results it appears that “conservation” prices are more accurately described as “efficiency” prices.

Summary and Conclusions

Recent policy proposals introduced by the USBR promote adoption of conservation pricing systems by irrigation districts receiving federal water. Most analysis of conservation pricing centers on volumetric water prices while most irrigation districts use either acreage-based water fees or a combination of acreage-based and volumetric water fees. Simultaneous changes in the two elements of water price currently used by most water providers can send mixed conservation signals to irrigators. This is because the water price is being levied on two inputs (water and land), not simply one (water).

Simple simulation results through positive mathematical programming confirm these theoretical results and suggest that common institutional constraints limit the ability to conserve water through conservation prices. However, the results also suggest that even without achieving water conservation in a physical sense, changing the system of prices does promote economic efficiency. Overall the results suggest changes in the set of prices for irrigation water, whether through adjustments in acreage-based or volumetric fees, have negligible effects on overall water usage primarily due to restrictions on how the water provider can transmit costs to water users. Yet even with these issues, it is possible to reallocate water costs between water and land in a way that promotes economic efficiency, if not conservation.

Acknowledgements

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Figure 1: Overall Water Usage

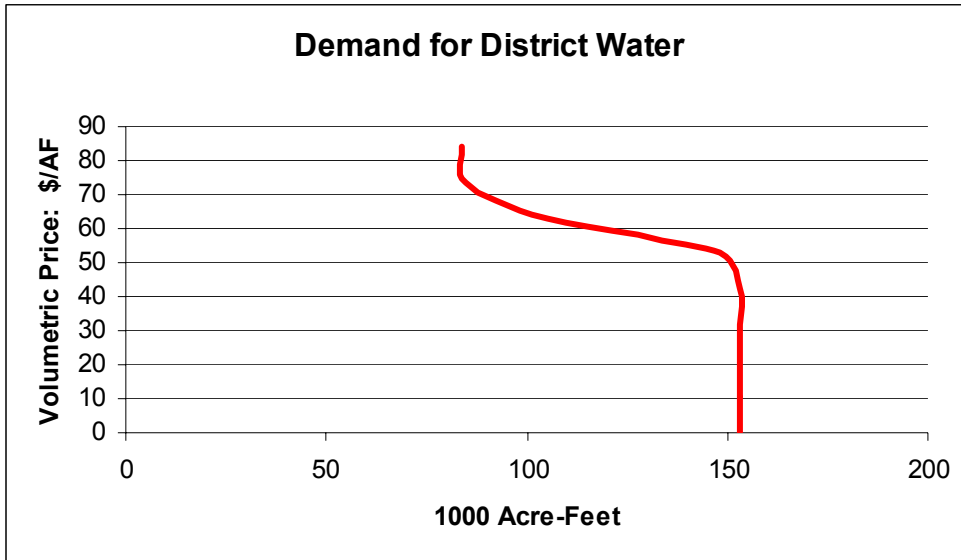
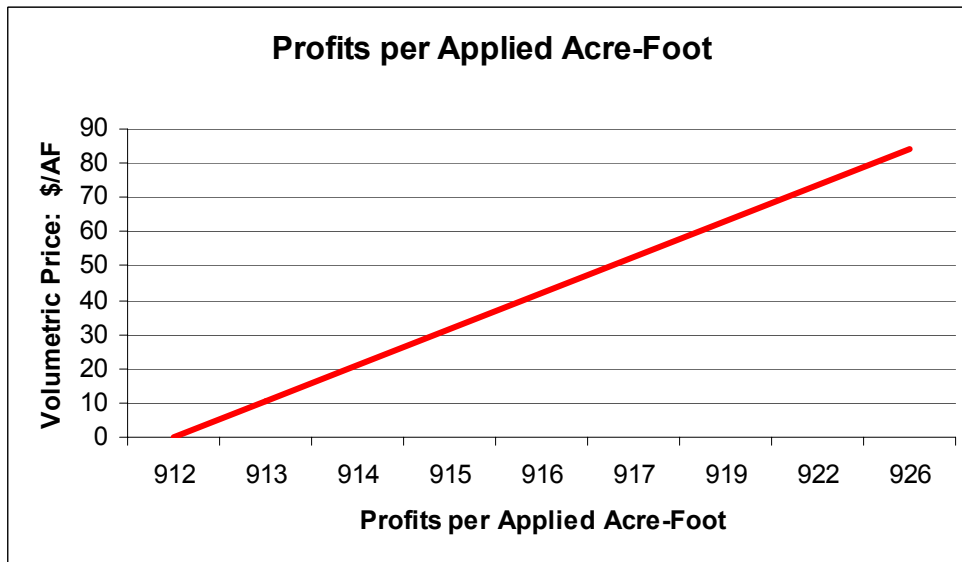


Figure 2: Profits per Applied Acre-Foot



BULLETIN BOARD

CAMP RESOURCES

August 16-17, 2004

**Wilmington Hilton Riverside
301 North Water Street
Wilmington, North Carolina**

Camp Resources is an opportunity to discuss research underway in the Southeast on resource and environmental economics. The focus is on graduate student involvement; informal (but prepared) discussions, without papers; developing opportunities for collaboration; learning about new developments in the field and getting to know each other.

Who Should Attend?

Graduate students and young faculty or researchers at universities, public or private institutes (i.e., RTI, TER, RFF, etc.) or government agencies interested in resource and environmental economics. It is likely to be of special interest to students who are thinking about dissertation topics or who are in the process of doing their thesis research.

Who Sponsors It?

Camp Resources was initiated as a joint venture of North Carolina State's REEP activities in collaboration with Duke's Economics Department and the School of the Environment and UNC-Chapel Hill's program in the Departments of City and Regional Planning and Environmental Sciences and Engineering. Georgia State and the University of South Carolina have expressed interest in joining forces for an extended collaboration.

We do not expect a paper. However, a clear, well-organized 20 minute presentation describing a completed research project has been standard fare. These presentations should be organized using overheads (and we hope for continuing or exceeding past standards for

interesting presentations). The speakers do not need to have copies of their papers available. As in the past, some support for travel and/or lodging will be provided (i.e., up to \$250 per presenter; this amount is per paper. It may get better, but funding negotiations are still underway).

For those interested in making presentations, please send a one-page abstract to Dr. V. Kerry Smith at the address listed below by **May 28, 2004**. (Please note that this date is a few days earlier than last year.) Decisions will be made as to who will be making presentations at Camp Resources XII. Everyone who wants to come is of course welcome. We anticipate that the format would remain the same as last year's (i.e., full sessions both days). Costs of a light breakfast each morning and lunch both days will be covered. We expect to have another focused methodology/learning session. (See the link on the AERE Web Page for more information.)

For information about registering to attend please send name, address, and e-mail to the person who assures it all works smoothly, CEnREP's administrative assistant, Jack Crawley (Jack_Crawley@ncsu.edu).

Please mail your abstracts to:

**Prof. V. Kerry Smith
Center for Environmental and Resource
Economic Policy
Department of Agricultural and Resource
Economics
Campus Box 8109
North Carolina State University
Raleigh, N.C. 27695-8109**

[Co-editor's note: There is a link to Camp Resources on the AERE Web Page under "Meetings".]

**DISSERTATIONS INITIATIVE FOR THE
ADVANCEMENT OF CLIMATE CHANGE
RESEARCH (DISCCRS)**

The Dissertations Initiative for the Advancement of Climate Change Research (DISCCRS) is an interdisciplinary, cooperative effort funded by the National Science Foundation (NSF) and the National Aeronautics and Space Administration (NASA) and supported by several professional societies including the American Geophysical Union (AGU), American Meteorological Society (AMS), American Society of Limnology and Oceanography (ASLO), and the Ecological Society of America (ESA). DISCCRS was founded in 2002. The first two-year program cycle targeted physical and natural scientists.

Beginning with DISCCRS II, we are seeking to engage social scientists as well. By targeting recent Ph.D. recipients from across the spectrum of disciplines involved in climate change research, the program will:

- organize an international "capstone" symposium to foster interdisciplinary understanding and interactions across disciplines;
- identify doctoral students across a range of disciplines who are completing dissertations on climate change and develop a database of dissertation abstracts that will be publicly available for those seeking to identify collaborators on interdisciplinary projects; and
- establish electronic distribution lists to promote international, interdisciplinary communication.

The program is designed to foster interdisciplinary understanding and accelerate research and insights in the vitally important and time-sensitive area of climate change and its impacts. It fosters international as well as inter-institutional networks and favors participants from both developing and developed countries.

The first symposium, held in Puerto Rico in March 2003, provided an opportunity for recent PhDs across the physical/natural sciences to learn about cutting-edge work in a variety of disciplines and forge collegial bonds with their peers. Forty recent graduates participated in this week-long event, which began with 'mini-plenary' talks that combined a survey of each participants general field of study with discussion of their dissertation research. Two mentors, one representing the natural and one the social sciences, provided overviews of the state of climate change knowledge as context for the more focused presentations of the participants. Consultants provided training on communication skills, teambuilding, and communicating to a nonspecialist audience. Panel discussions focused on research proposal development, job hunting, and career progression. Working groups provided a forum for discussion on issues of importance to these recent grads. The diversity of participants in terms of discipline, nationality, training, and current employment fostered considerable peer and near-peer mentoring. The symposium brings together individuals whose work transcends traditional boundaries and enables them to enhance understanding and perspectives and establish collegial, long-term associations to advance the field in new ways.

Development of a database (the on-line Dissertation Registry) of recent climate change dissertations provides a comprehensive yet concise summary of new research for scientists, policymakers, and agency representatives and facilitates integration of this new generation of researchers into the broader community. It also provides an ability to identify researchers working in particular areas of climate change for potential collaborations while also identifying areas where more research needs to be done. Electronic distribution lists provide a mechanism to disseminate information and foster communication across disciplinary and international boundaries.

The program is described in more detail at <http://www.aslo.org/phd/discrcrposter.pdf>.

ENVIRONMENTAL VALUATION LABORATORY (ENVALAB)

The Environmental Valuation Laboratory (ENVALAB) is a research unit based at the University of Catania (Italy), Dipartimento di Scienze Economico-Agrarie ed Estimative (DISEAE). ENVALAB undertakes high quality studies and research on the economic valuation of nonmarket goods, especially environmental and natural resources, and cultural heritage. ENVALAB seeks to produce findings that are relevant not only to the academic community, but also to policymakers, officers, professionals, and stakeholders involved in the field of the preservation and management of natural and heritage assets.

To achieve this objective, ENVALAB maintains contacts and engages in collaborative work and joint projects with leading researchers and scholars in the U.S.A., Europe, and in other countries. ENVALAB publishes its research findings as working papers and as refereed journal articles. Electronic working papers will be also available from the Social Science Research Network.

Aims:

- to promote and carry out studies, research and consulting activities;
- to organize seminars, workshops and meetings;
- to organize courses for students, officers, and professionals;
- to participate in international and national networks;
- to promote scientific cooperation;
- to support the use of environmental valuation in the decisionmaking and regulatory process;
- to offer advice in the formulation of environmental valuation standards;
- to collect and populate Italian environmental valuation studies and databases.

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Studies and Research:

ENVALAB is currently involved in three research areas. The first explores methodological and empirical issues in environmental valuation models (*travel cost method, random utility models, hedonic method, contingent valuation method, choice experiments, benefit transfer*). The second deals with the application of revealed preference methods and stated preference methods to several and significant case studies. The third area is devoted to collect environmental valuation studies carried out in Italy, in order to set up useful databases for *benefits transfer* studies.

The following is a list of some ongoing applied research projects:

- Natural resource damage assessment in the U.S.A. and in the European Union;
- Valuation of domestic animal biodiversity;
- Valuation of rural landscapes;
- Assessing the economic benefits of protected areas;
- Valuing use and non-use benefits of wetlands;
- Meta-analysis of outdoor recreational use values in Italy;
- Estimating benefits of fresh water sport-fishing;
- Valuing externalities of Mediterranean forests;
- Estimating monetary preferences for cultural goods in Sicily.

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THE FEDERAL ENERGY REGULATORY COMMISSION (FERC)

The Federal Energy Regulatory Commission (Commission) has issued a notice requesting applications from those interested in being listed as potential panel members to assist in the Commission's study dispute resolution process for the integrated licensing process for hydropower projects, Docket No. AD04-4-000. Complete details are located on the Commission's hydropower website:

<http://www.ferc.gov/industries/hydropower/industry/act/ilp.asp>.

Applications are due **May 28, 2004**. For further information, contact Mr. Lon Crow at (202) 502-8749 or lon.crow@ferc.gov.

THE OHIO STATE UNIVERSITY UNDERGRADUATE RESEARCH CONTEST

Entries are being solicited for the 3rd Annual National Undergraduate Research Contest in Agricultural, Environmental and Development Economics. Undergraduate students from accredited U.S. or Canadian universities are encouraged to submit an essay in one of the following fields:

- Agricultural Economics
- Environmental Economics
- Development Economics

The top essay and top thesis among the three fields will each receive a Grand Prize of \$250. One additional finalist in each field will be recognized in both thesis and essay contests. All four winning essays and four winning theses summaries will be published by The Ohio State University. Essays should be targeted to an audience with a thorough undergraduate training in economics or business while theses should be submitted as is. Submissions must follow the rules listed below to be eligible.

[Co-editor's note: See the [complete](#) announcement under "News" on the AERE Web Page (www.aere.org).]

1. All participants must be enrolled as an undergraduate in an accredited U.S. or Canadian university for the semester during which the work was completed; both Fall 2003 and Spring 2004 graduates may enter.

2. All entries must be original work; original works written for a class, senior papers or thesis qualify. Input from advisors or instructors should not exceed general guidance during developmental stages of the essay and general editorial suggestions during the final stages. Plagiarism, if identified, will be reported to any and all institutions with which the entrant is or will be affiliated.

3. All essays shall be typewritten in English. Essays shall be no more than 15 double-spaced pages using 12-point font with one-inch margins. The page limit includes tables, figures, footnotes, endnotes and appendices. Title page, abstract (<300 words), and references pages are excluded from this page limitation. Entries that exceed page limitations will be eliminated upon receipt.

4. Thesis submissions should follow the format and style guidelines of the entrant's home institution and must include an abstract if not already part of the thesis.

5. Essays and theses submissions should include a title page that includes the following: the title; author name, affiliation and contact information (summer phone, e-mail, postal address). For essays, the next page should contain the title and abstract; theses can be submitted as is if an abstract is already included.

6. Entries are to be submitted electronically to roe.30@osu.edu in Acrobat/PDF or MS Word format.

7. The student's advisor or supervising teacher must independently e-mail a letter to roe.30@osu.edu by the entry deadline that (1) includes the student's name and essay title, (2) states the student's essay constitutes original work and, (3) includes the advisor's contact information (phone, postal address, e-mail).

Entries and advisor's letters must be *received* by 5:00 p.m. EST, **June 4, 2004** to be eligible.

**U.S. ENVIRONMENTAL PROTECTION
AGENCY (EPA), NATIONAL CENTER FOR
ENVIRONMENTAL ECONOMICS (NCEE)**

The U.S. Environmental Protection Agency's (EPA) National Center for Environmental Economics (NCEE) is pleased to announce that the following working papers were published during 2003 in the NCEE Working Paper Series. Working Papers are either co-authored or funded by NCEE. All papers are available at:

<http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/WorkingPapersByYear.html?OpenD>

- 2003-01 Sarah West and Ann Wolverton, "Market-Based Policies for Pollution Control in Latin America"
- 2003-02 Glenn C. Blomquist, "Self Protection and Averting Behavior, Values of Statistical Lives, and Benefit Cost Analysis of Environmental Policy"
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